

EEEGR End of Year Members Breakfast

Introducing the Onshore Renewables Sector Council



Welcome

Rob Bush General Manager EEEGR



Housekeeping

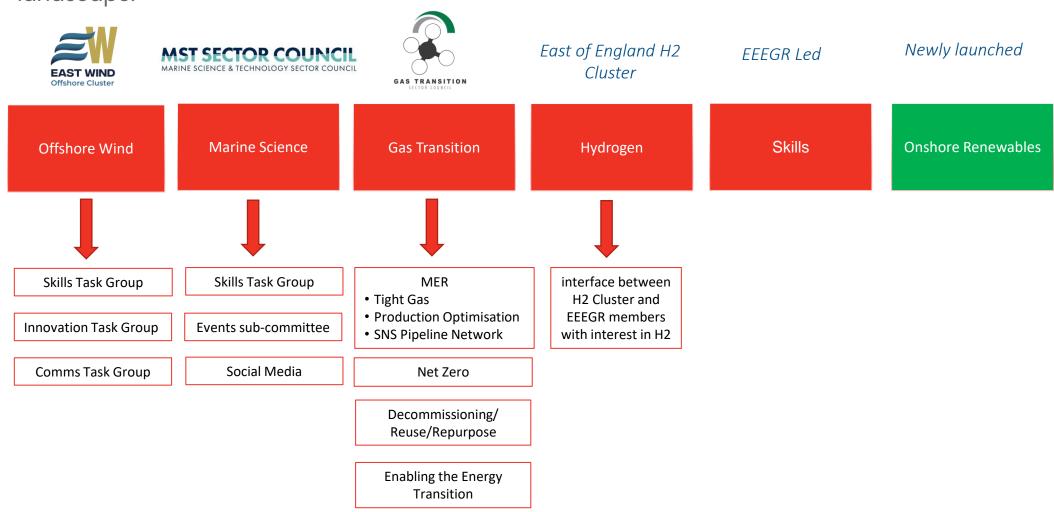
There are no planned fire drills during this event.

If you hear a fire alarm, please make your way to your nearest exit in a calm and orderly manner.



Energy Sector Councils

These Energy Sector Councils strengthen the East of England's position as the UK's Integrated Energy exemplar, demonstrating the interrelations between the different energy sectors in East Anglia and allowing the promotion of opportunities within other sectors across our rich energy landscape.



































Next steps

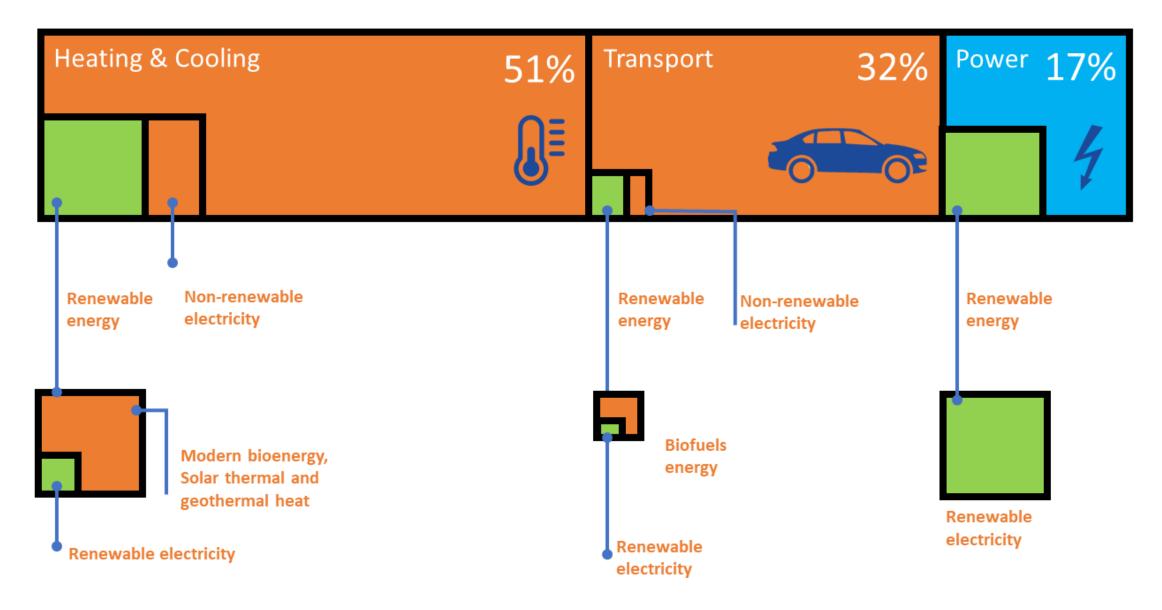
- Arrange kick off meeting with the whole steering committee
- Agree Terms of Reference
- Identify focus areas
- Setting up of special interest groups extending to members of the supply chain

Karl Farrow CEO CeraPhi Energy





Our Energy Mix



Positioning ...

- UK, has fallen from Fourth to Seventh in leading renewables race
- East Anglia is at the heart of the UK's renewable energy sector.
- 43% of the nation's offshore wind is generated on our shores and one of the country's most important nuclear power plants is on the horizon, our region is leading the way in the fight for net zero.
- East Anglia's renewable and low-carbon energy portfolio powered the equivalent of 32% of UK homes.

Onshore Renewables Sector Council...

- The objective of the Onshore Renewables Sector Council is:
- Focus on regional onshore development of onshore renewables
- Supporting energy transition in the UK's efforts to decarbonise onshore infrastructure.
- Providing energy security whilst enabling the energy transition.
- Attract investment and economic growth to the region

Onshore renewables? any energy collected from land-based resources that are naturally replenished, such as sunlight, wind, rain, and thermal energy together with recoverable energy that originates from a renewable source.

Onshore Renewables Sector Council...

- Wind
- Biomass
- Solar
- Storage
- Hydro
- Anaerobic Digestion / Waste to Energy
- Green Hydrogen
- Geothermal



Paul Rees

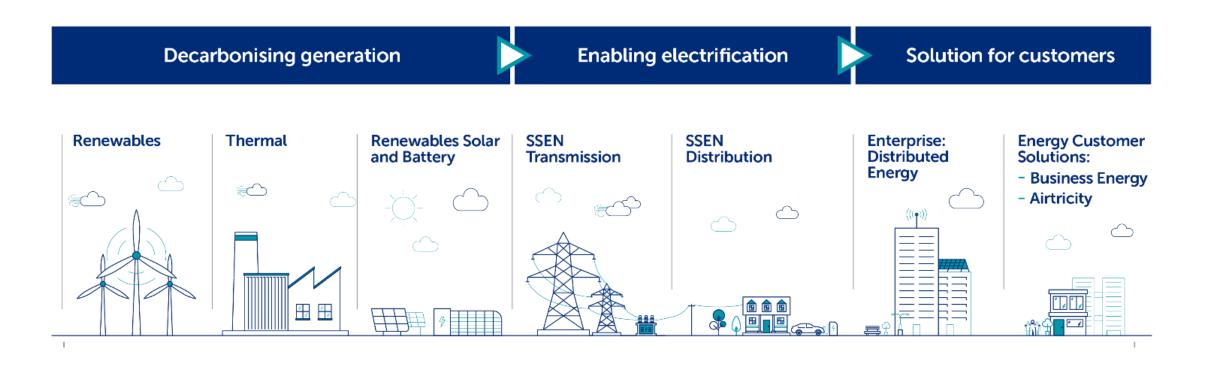
Director of Strategic Growth Sse Energy Solutions SSE





SSE plc – Powering Change on the Road to a Net Zero Future

Delivering a cheaper, cleaner and more secure homegrown energy system

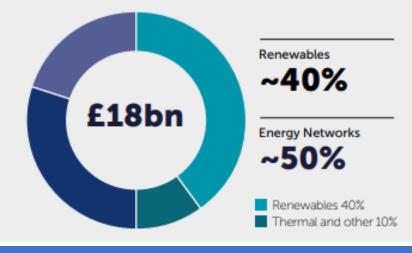


Net Zero Acceleration Programme (NZAP) Plus

SSE's enhanced investment plan, NZAP Plus, is a platform to maximise stakeholder value into the 2030s.

In May 2023, SSE's Net Zero Acceleration Programme (NZAP) was revised to reflect the increased opportunities created as the world pursues net zero.

Balanced capital investment in upgraded, fully-funded plan...



Sharper focus on climate solutions

Supporting SSE's 2030 Goals with around 90% expected to be invested in renewables and networks, the substantial majority of the NZAP Plus is focused on climate solutions that are aligned to a 1.5°C pathway and also aligned to the Technical Screening Criteria of the EU Taxonomy.

- Transmission 30%
- SSE has set out plans that could see it invest up to £40bn across the decade to 2031/32, with fully funded £18bn five-year investment plan to 2027

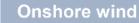
- ✓ SSE will invest profits back into critical infrastructure, while rebasing its dividend from 2023/24 to prioritise investment and growth
- ✓ The company is recruiting for more than 1000 green jobs every year

Investing in the Future Energy System

Leading capabilities and investment pipeline are creating green jobs for the future







SSE-led projects delivering ~20% of UK's offshore wind target

Offshore wind



Targeting up to 20% of Scotland's onshore wind additions



Hydro options

Coire Glas: more than doubling UK's electricity storage capacity



Distributed energy

Progressing multi-GW solar and battery opportunities



CCS and Hydrogen

Over 2GW of '1st of a kind' lower-carbon prospects



Energy independence

Renewables led

Efficient networks

Critical flexibility

Storage capacity

Greening demand

Lowest cost for consumers



Expected over 20% of planned GB investment













Andy Hilton Development Director Muirhall Energy







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Muirhall Energy Limited is a company registered in Scotland, company number SC355143. Registered office: Muirhall Farm, Carnwath, South Lanarkshire, ML11 8LL www.muirhallenergy.co.uk

Section 1 - Muirhall Energy Limited



Company Overview

Muirhall Energy Limited (Muirhall) is a leading independent developer and operator of renewable energy assets located in Scotland, England and Wales. Muirhall is committed to playing our role to deliver on the UK Governments net-zero targets.

Muirhall has constructed in excess of 150MW of onshore wind projects across the UK and has achieved an industry leading planning consent success rate. We have organically grown a 4.5GW pipeline of high-quality onshore wind and battery energy storage system (BESS) projects, at various stages of development, and our ambition is to secure at least an additional 3GW of renewable energy developments by 2030.

A key element of our success is "The Muirhall Way"; focussed on community, people and innovation, which has contributed to our exceptional > 95% planning success rate.

Community

A community first approach through building positive local partnerships

- Industry leading community engagement, recognising that success is achieved by working collaboratively with nearest neighbours and host communities.
- Community wealth building through our pioneering Initial Investment Fund, Community Investment Fund and ongoing sponsorship partnerships allowing investment into the projects that matter most to communities.
- Local businesses firmly prioritised for subcontracted work with preferred tender rates.
- Development and delivery of accredited renewable energy courses at local colleges, encouraging learning and careers in renewables in schools.

People

A dynamic, collaborative and pro-active approach to development driven by a passionate team

- Muirhall has a 'people first' approach to development which champions our extensive in-house expertise and collaborative culture.
- An environment where innovation is nurtured and encouraged across all functions.
- Team members nominated for multiple industry awards, underlining the breadth of talent and passion for renewables e.g., Engineer of the year.

Innovation

Overcoming hurdles with innovative solutions and paving the way for the industry through a number of Muirhall firsts

- Creative and innovative approaches are encouraged, leading to highly positive outcomes including significant grid cost savings and delivering industry leading aviation solutions.
- o A track record of industry firsts, and industry-leading initiatives.







The Team

The multi-disciplinary and highly skilled Muirhall team comprises of 53 employees.

Muirhall has in excess of 20 years' experience in developing renewable energy projects and offers a full development service from initial feasibility studies, through to planning, financing, construction, commissioning and operation.

Our in-house expert team brings a complete and diverse range of skills and knowledge to each of our projects.

Muirhall are also proud members of industry bodies:







Lanark HQ

- Established in 2002, Muirhall's group HQ and registered office address.
- 26 FTEs are based at Muirhall Farm, also home to Muirhall Wind Farm, the first wind farm developed by the company.

Maxim Park

- Muirhall has recently opened a new office space at the Maxim Park Complex, at Eurocentral, to support our growing team.
- 18 FTEs are based at this office, with other members of the company using the space as a satellite office.

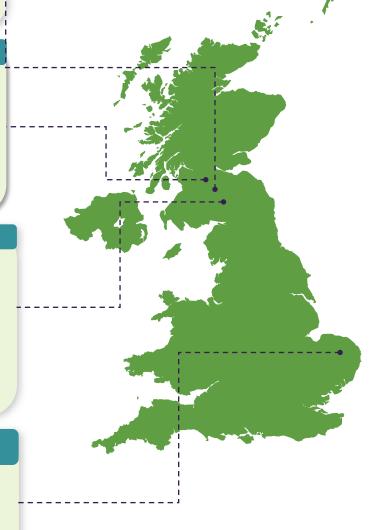
Hawick

Hawick

- Established in 2022; provides coverage for southern Scottish projects.
- 6 FTEs are regularly situated in the Hawick office – with the office used as a drop in for locals to engage with the Muirhall team.

Norfolk

- Established in 2023; provides coverage for English projects.
- 3 FTEs situated across Norfolk.



Vision and Values



At the heart of the company is a sustainable commitment to local people, with a tangible aim to create real opportunities for individuals, businesses, groups, and community projects.



Muirhall is a UK-based independent developer and operator of renewable energy assets which seeks to play a leading role in the national drive to net zero by 2045 whilst realising value for its communities and its shareholders.



Muirhall employ core values of integrity, trust, and loyalty. These values are key to establishing and maintaining close relationships with landowners, local communities, and stakeholders throughout the development process.

Company Capabilities

Muirhall's team is led by a leadership team with more than 150 years of combined renewables experience. Across all our Functions the team delivers in-house capabilities supporting our projects through every step of the development process.

External & Corporate Affairs Commercial **New Projects** Development Design Delivery Legal **Finance** Function lead Gordon Amanda Swan Lesley McNeil Mike Molleson Stephen Corr **Scott Matheson** MacDougall Archibald External & Corporate **Delivery/ Construction** Design Legal **Technical New Projects Planning Finance** Affairs o Project management Consenting strategy Site layout design Site Identification / Financial Strategy Governance QGIS and constraints Experienced PR Assessment Constraints mitigation Construction planning and management mapping **Business Support** Financial Control professionals Constraints Modelling RTPI Planners by design and logistics Energy Yield **Budget & Forecasting Project Support** Membership of the Access and grid route Civil, structural. Landowner / Statutory consultee Assessments Company Secretarial Project finance and Chartered Institute of optioneering and key stakeholder electrical and Consultant o Aviation Assessment **Team Capabilities** lender reporting Legal advice across a **Public Relations** Value engineering Engagement engagement mechanical number of areas Co-located technology Treasury Formation and engineering Commercial Project management including, commercial, Integration delivery of Health and Safety Grid Negotiations Environmental corporate, property government policy Quality Assurance and o Initial design Discipline Experts and planning. Stakeholder Control Grid Design management and **Grid Optimisation** relationship building Grid Delivery **Director of Corporate Founder and Chairman Managing Director Development Director** Development Commercial & Operations Route to Market **Andy Hilton** Sarah McIntosh Samantha Coyne Chris Walker Asset Management

Section 1.1 - Approach to Development



Development Processes and Timelines

Muirhall has a clearly defined development process from site selection through to completion of project finance, following which construction commences. The development process has three core phases, covering Development, Delivery and Construction.

Dedicated teams maintain responsibility for driving each phase through to completion and are supported by a six specialist divisions: Finance, Legal, Business Support, Commercial, Design and the External and Corporate Affairs teams. Once our projects are operational, our dedicated Operations team takes over to ensure the turbines and other ancillary infrastructure are maintained for optimum performance of the renewables project.

Phase 1: Development

Phase 1 of the development process takes projects through to planning consent and is resourced by a comprehensive Project Team.

Muirhall goes above and beyond the standard industry expectations, delivering innovative biodiversity, landscape and aviation solutions.

Our process includes significant investment in early design related considerations and extensive engagement with local and statutory stakeholders to maximise layout success. Muirhall have built excellent relationships with key consultees in the decision-making process.

Key processes:

- o EIA Submitted and Consented
- o Key agreements reached (grid, land, aviation)
- Community relationships developed and strengthened.

Phase 2: Delivery

The delivery phase initially looks at how to optimise the project by undertaking a turbine mechanical assessment and subsequently refining the turbine and related infrastructure layouts.

The Grid Manager continues to progress the grid connection offer, chairing negotiations with landowners and network operators and pushing to bring forward grid connection dates.

The team drive the process through to Final Investment Decision, drawing on in-house expertise to negotiate and agree key contracts, and discharge remaining conditions in a timely manner ahead of construction.

Key processes:

- o Contracting of main contracts
- o Due diligence & site surveys completed
- o Optimisation of development.

Phase 3: Construction

During the construction phase of development, the Muirhall Team manage and oversee the build of the wind farm from day one.

Muirhall's team work closely with their contractors, landowners and nearest neighbours to reduce the impact of construction on the local communities impacted by the construction process.

Key processes:

- Ensuring HSE is embedded in all construction operations
- Managing the programme and interfaces
- o Leading grid connection energisation.
- Ensuring the renewables project is built time and on budget.

Section 1.2 - Communities



Community Investment and Shared Ownership



Community Investment

Investment in the communities in which we work is at the heart of every project we develop.

Muirhall is proud to offer an industry leading Community Investment Fund of £7,000 per megawatt installed, a figure which enables communities to invest in issues that matter the most to them.

Shared Ownership

In addition to the exemplar community investment package, Muirhall also offers the community up to a 10% share in the renewables project through a shared ownership option, giving local people the opportunity to be part owners of a renewables project that has the community at its heart.

Muirhall was delighted to reach a shared ownership agreement with the communities nearest our Crossdykes Wind Farm, where the communities utilised a portion of their community investment fund to purchase a 5% share in the renewables project.

In order to minimise investment risk to the communities, shared ownership is only entered into once the site is fully constructed and operational, thus eliminating any financial risks during the construction phase. Muirhall has worked hard to streamline this process, resulting in a working model which other communities can follow.

Community Investment Funds

The Community Investment Funds are paid to host communities and are more than the £5,000 per MW recommended by the Scottish Government's Good Practice Principals for Community Benefits.

This commitment, over the 40-year lifespan of the average wind farm, can be transformative to rural communities, allowing investment and larger capital projects to be considered, with funding dispersed entirely at the discretion of the communities.

Our exemplary approach to community wealth building has been recognised by the Scottish Government and was featured in their Onshore Wind Policy Statement in 2022.

In addition to our Community Investment Funds Muirhall also look to, where possible, share the infrastructure upgrades brought to local areas when constructing the renewables project.

At our Crossdykes Wind Farm, Community Fibre and Wireless Broadband was delivered to 75 local homes within 3km of the renewables project.



For our recent and planned projects, the Community Investment Funds total:

- Greengairs East Wind Farm (operational) = £180,000 per annum, or £7,200,000 for a 40-year lifespan.
- **Priestgill Wind Farm** (approaching construction) = £218,000 per annum, or £8,720,000 for a 40-year lifespan.
- Teviot (application) = £2,500,000 per annum or £100,000,000 for a 40-year lifespan.
- Glen Ullinish II (application) = £2,000,000 per annum or £80,000,000 for a 40-year lifespan.

Sophie Skipp Head of Energy Skills EEEGR





TOWIE? East of England Energy Group

December 2023

















Share Information

Become the go to source for the region's energy related labour market information and intelligence.

Tell People's Stories

Amplify our members' and the region's voice on energy, people & skills.

Extend Our Reach

Reach the people who are yet to discover energy as their target sector.

Inspire Excellence

Share our best people & skills work and case studies with a targeted audience.

Skillsfor**Energy** ENGLAND O F



OUR SPONSORS





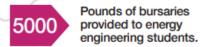






There are thousands of careers in energy.

We're filling the gap in 2023...



Aged 11 - 19 students engaged in STEM skills and careers activities.

Future apprentices 73 completed a six week STEM project.

STEM engineering school projects sponsored.

Engineering students developed every week at East Norfolk Sixth Form.

Student regularly mentored.

Hard back books donated to inspire our youngest, future engineers.

Free bus passes 65 issued to support work experience.

Interns inspired at EEEGR.

Mock interview days supported.

Primary school students 469 discovered offshore wind during project days.

School assemblies and talks sharing the range of careers available.

Careers fairs attended.

















DUDGEON

Offshore Wind Farm

Operated by Equinor











DUDGEON
Offshore Wind Farm
Operated by Equinor









- 2 year programme
- Collaborating with University of Essex
- Site visits
- Work experience
- Resources for residents
- Skills and careers events









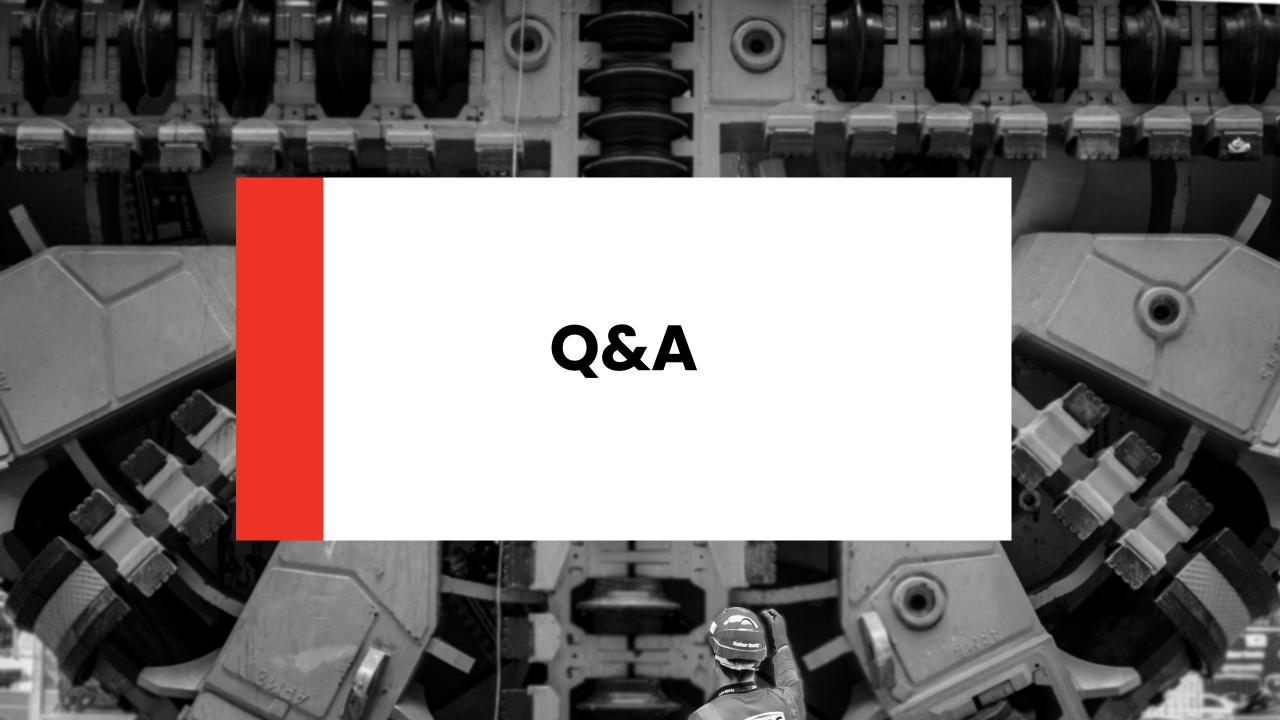












EEEGR Events

14th December: Marine Science and Technology Sector Council Forum meeting. Kingfisher House, Norwich

24th January: House of Commons Reception, London

6th – 7th March, Festival of Knowledge, Norfolk Showground

22 – 23 May: SNS24, Norfolk Showground

www.eeegr.com/events

